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DHEC Health Update

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Revised SC DHEC Interim Recommendations for Infection Control for Care of Patients with Confirmed, Probable or Suspect Novel H1N1 (swine-origin) Influenza in Healthcare Settings – (Updated 5/9/09)

This document provides interim guidance for healthcare facilities on selected aspects of infection control for the novel A:H1N1 (swine) influenza virus, with emphasis on management of sick or exposed healthcare workers. It also describes the patients on whom we request submission of naso-pharyngeal swabs for the Novel H1N1 (swine) influenza virus.

These Recommendations are drawn primarily from the web page of the Tennessee Department of Health, and in several areas are repeated verbatim. We wish to express our gratitude to that Department and to Dr. Marion Kainer. SC DHEC has reviewed these recommendations carefully and is confident of their consistency with recommendations from professional organizations such as the CDC Hospital Infection Control and Prevention Advisory Committee, and The Joint Commission. These recommendations have also been informed by discussion with staff of CDC Division of Healthcare Quality Promotion.

The Tennessee Department of Health Guidelines can be found at:
http://health.state.tn.us/Downloads/H1nN1CaseDefinitions.pdf

Implementation of Respiratory Hygiene/Cough Etiquette

To prevent the transmission of **all** respiratory infections in healthcare settings, including swine influenza A (H1N1), Respiratory Hygiene/Cough Etiquette infection control measures (see http://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm) should be implemented at the first point of contact with a potentially infected person. They should be incorporated into infection control practices as one component of Standard Precautions.

Healthcare facilities should establish mechanisms to screen patients for signs and symptoms of febrile respiratory illness who are presenting to any point of entry to the facility for care or making appointments to be seen at the facility. Provisions should be made to allow for prompt segregation and assessment of symptomatic patients.

Implementation of facility contingency plans

The current situation with swine flu in the United States is evolving quickly. Staff in healthcare settings should monitor http://www.cdc.gov/swineflu and state and local health department websites for the latest information. Healthcare facilities should be reviewing and making plans to implement their facility contingency response and/or pandemic response plans. This should include making plans for managing increasing patient volume and potential staffing limitations.

Interim Infection Control Recommendations

If the patient is presenting in a community where swine influenza A:H1N1 transmission is occurring (based upon information provided by state and local health departments), these infection control recommendations should apply to all patients with febrile respiratory illness (defined as fever [greater than 100 degrees Farenheit /37.8° Celsius] plus one or more of the following: rhinorrhea or nasal congestion; sore throat; cough).
If the patient is presenting in a community without swine influenza A (H1N1) transmission, these infection control recommendations should apply to those patients with febrile respiratory illness AND:

- close contact with a person who is a confirmed, probable, or suspected case of swine influenza A (H1N1) virus infection, within the past 7 days OR
- travel to a community either within the United States or internationally where there are one or more confirmed swine influenza A (H1N1) cases within 7 days.

However, as this virus spreads throughout the state, the ability to use epidemiologic links to identify potentially infectious patients will be lost, and in many locations these recommendations should be applied to all patients with febrile respiratory illness. This situation will be monitored, and these guidelines will be updated as needed.

Infection Control of Ill Persons in a Healthcare Setting

Screening of patients presenting to medical facilities

Patient placement and transport

Any patients who are confirmed, probable or suspected cases and present for care at a healthcare facility should be placed directly into individual rooms with the door kept closed. Healthcare personnel interacting with the patients should follow the infection control guidance in this document. For the purposes of this guidance, healthcare personnel are defined as persons, including employees, students, contractors, attending clinicians, and volunteers, whose activities involve contact with patients in a healthcare or laboratory setting.

Procedures that are likely to generate aerosols (e.g., bronchoscopy, elective intubation, suctioning, administering nebulized medications), should be done in a location with negative pressure air handling whenever feasible. An airborne infection isolation room (AIIR) with negative pressure air handling with 6 to 12 air changes per hour can be used. Air can be exhausted directly outside or be recirculated after filtration by a high efficiency particulate air (HEPA) filter. Facilities should monitor and document the proper negative-pressure function of AIIRs, including those in operating rooms, intensive care units, emergency departments, and procedure rooms.

Procedures for transport of patients in isolation precautions should be followed. Facilities should also ensure that plans are in place to communicate information about suspected cases that are transferred to other departments in the facility (e.g., radiology, laboratory)

and other facilities. The *ill person should wear a surgical mask to contain secretions when outside of the patient room*, and should be encouraged to perform hand hygiene frequently and follow respiratory hygiene / cough etiquette practices. Ill patients wearing surgical masks should be educated to not remove the mask when coughing or sneezing, or to be careful to cover their mouth and nose with a tissue whenever they remove the mask.

Limitation of healthcare personnel entering the isolation room
Healthcare personnel entering the room of a patient in isolation should be limited to those performing direct patient care.

Isolation precautions
Standard and Contact precautions plus eye protection should be used for all patient care activities for patients being evaluated or in isolation for swine influenza A:H1N1 (i.e., including all healthcare personnel who enter the patient's room). Maintain adherence to *hand hygiene by washing with soap and water or using alcohol-based hand sanitizer* immediately after removing gloves and other equipment and after any contact with respiratory secretions. Nonsterile gloves and gowns along with eye protection should be donned upon room entry. (See http://www.cdc.gov/ncidod/dhqp/ppe.html)

Respiratory protection:
All healthcare personnel who enter the rooms of patients in isolation for presumptive Novel H1N1 influenza should wear a surgical mask. Respiratory protection should be donned on room entry.

Note that this recommendation has been changed from our recommendations of May 6, and conforms to the current infection control guidance for seasonal influenza, which recommends that healthcare personnel wear surgical masks for patient care.
Some healthcare institutions may feel that a more conservative approach is needed until more is known about the specific transmission characteristics of this new virus. They may choose to conform to recommendations outlined in the October 2006 "Interim Guidance on Planning for the Use of Surgical Masks and Respirators in Healthcare Settings during an Influenza Pandemic" http://www.pandemicflu.gov/plan/healthcare/maskguidancehc.html .
Note that we are still recommending use of N95 masks on healthcare workers for aerosol-generating procedures.

Duration of Precautions:
Isolation precautions should be continued for seven (7) days from symptom onset or until the resolution of symptoms, whichever is longer.

Persons with H1N1 swine influenza virus infection should be considered potentially contagious from one day before symptom onset to 7 days after. Persons who continue to be ill longer than 7 days should be considered potentially contagious until symptoms have resolved. Children, especially younger children, could be contagious for longer periods.

Surveillance of healthcare personnel

In communities where swine influenza A (H1N1) virus transmission is occurring, healthcare personnel should be monitored daily for signs and symptoms of febrile respiratory illness. Healthcare personnel who develop these symptoms should be instructed not to report to work, or if at work, should cease patient care activities and notify their supervisor and infection control personnel.

In communities without swine influenza A (H1N1) virus transmission, healthcare personnel working in areas of a facility where there are patients being assessed or isolated for swine influenza infection should be monitored daily for signs and symptoms of febrile respiratory infection. This would include healthcare personnel exposed to patients in a outpatient setting or the emergency department. Healthcare personnel who develop these symptoms should be instructed not to report to work, or if at work, should cease patient care activities and notify their supervisor and infection control personnel.

Healthcare personnel who do not have a febrile respiratory illness may continue to work. Asymptomatic healthcare personnel who have had an unprotected exposure to swine influenza A (H1N1) also may continue to work if they are started on antiviral prophylaxis (e.g. oseltamivir or zanamivir once daily x 10 days). However, such personnel working with extremely high-risk patients (e.g. neonatal units or pediatric oncology floors) should be considered for temporary transfer to a care unit with lower-risk patients. Interim guidance on antiviral recommendations for close contacts of patients with confirmed or suspected swine influenza A (H1N1) virus infection can be found at http://www.cdc.gov/h1n1flu/recommendations.htm.

Management of ill healthcare personnel

Healthcare personnel should not report to work if they have a febrile respiratory illness.

In communities where swine influenza virus transmission is occurring, healthcare personnel who develop a febrile respiratory illness should be excluded from work for 7 days or until symptoms have resolved, whichever is longer. Preferably, such workers should receive treatment with a neuraminidase inhibitor antiviral to reduce the probability of vital shedding upon return to work.

In communities without swine influenza virus transmission, healthcare personnel who develop a febrile respiratory illness and have been working in areas of the hospital where swine influenza patients are present, should also be excluded from work for 7 days or until symptoms have resolved, whichever is longer.

In communities where swine influenza virus transmission is not occurring, healthcare personnel who develop febrile respiratory illness and have not been in areas of the facility where swine influenza patients are present should follow facility guidelines on returning to work.

Stewardship of personal protective equipment and antivirals

Facilities should implement plans to ensure appropriate allocation of personal protective equipment, including N95 respirators, and antivirals.

Additional information on N95 respirators and other types of respirators may be found at: http://www.cdc.gov/niosh/npptl/topics/respirators/factsheets/respfact.html, and at http://www.fda.gov/cdrh/ppe/masksrespirators.html .

Recommendations for Submission of nasopharyngeal swabs for RT-PCR and culture for Novel H1N1 influenza virus

DHEC requests that such swabs should be submitted in viral transport medium on all patients admitted to a hospital with influenza-like-illness (ILI), and on a sample of patients from any cluster of ILI in a healthcare institution, including long-term care and assisted living facilities. Please page the DHEC consultant on call (800 947-0902 or 803 690-3756) if you need to discuss the definition of a cluster.